Title

Streamlined process to optimize Marine Corps Medical Readiness

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Introduction

The strain and demands of the past decade of war and overwhelming crisis in rising health care costs have been significant challenges within the Department of Defense (DoD) and Military Health System (MHS). In response to these challenges, the DoD set a goal to ensure our Armed Forces are fully medically ready to support its mission. MHS senior leadership devised the Quadruple Aim model which focused on; Experience of Care, Population Health, Per Capita Cost and Readiness (MHS, 2011) as a strategic plan for improving quality health care and reducing health care costs within the MHS. In an effort to support DoD and MHS strategic goals of readiness, we employed principles of Patient Centered Medical Home (PCMH). Implementing the PCMH model into our primary care setting allowed us to leverage readiness efforts while remaining centered on the four goals of the Quadruple Aim.

Given the high operational tempo of the last decade, the initiative was to implement a robust, streamlined and structured medical readiness process aligned with DoD medical readiness initiatives. The goal was to ensure the Individual Medical Readiness (IMR) of 2,600 Marines empanelled to the 13 Area Branch Medical Clinic (ABMC), Marine Corps Base Camp Pendleton. Specifically, to ensure these Marines met the Bureau of Medicine's (BUMED) goals of Fully Medically Ready (FMR) at 75 percent and Medical Readiness Indeterminate (MRI) below eight percent (BUMED Notice 6110). Readiness defined says the total military force is medically ready to deploy and that the medical force is ready to deliver health care anytime, anywhere in support of the full range of military operations, including humanitarian missions. "IMR indicates a Sailor's or Marine's ability to deploy rapidly. IMR is also a direct reflection of a unit's capability to fulfill its mission (BUMED Notice 6110)."

The success of the objective was measured retrospectively using longitudinal data collected from 2,600 medical records compiled from the Medical Readiness Reporting System (MRRS) and Armed Forces Health Longitudinal Technology Application (AHLTA). The four IMR classifications include; Fully Medically Ready (FMR); Partially Medically Ready (PMR); Not Medically Ready (NMR); and Medical Readiness Indeterminate (MRI). The initiative was conducted over a period of 15 months, from July 2010 to October 2011.

The study suggested by streamlining the IMR process, integrating the PCMH model into the clinic, and creating a "one-stop-shop", amplified our endeavor for ensuring the readiness of our Marines.

Methods

As the primary care clinic provider for nine commands and 2,600 Marines at Marine Corps Base Camp Pendleton, it is the clinic's responsibility to ensure they are 'ready' in accordance with BUMED goals. IMR results of these commands in July 2010 were quite dismal and were significantly below BUMED's goal (See Fig. 2). Prior to the initiative, several challenges were identified; limited support from Line Leadership, the 13ABMC IMR process was unsystematic and time consuming, liaison communications between the clinic and supported commands were limited, staffs' and patients' limited education on the IMR process, frequent rotations of Active Duty Marines empanelled to the clinic, inconsistent paper / electronic medical records and IMR Program monitoring.

Leadership from 13ABMC formed a project team to review these challenges and identify process improvements to meet BUMED objectives. The team implemented, incorporated, standardized and streamlined the IMR process - a "One-Stop Shop" approach, unified with the PCMH model (See Fig. 1). The "One Stop Shop" concept was based on the PCMH model. The concept emphasizes team-based, comprehensive care to fully meet the complete primary care health, wellness and readiness needs of the patients (BUMED 6300.19). Other improvements included improved tracking, reporting data to IMR liaisons and leadership, a robust education campaign for command leadership and clinic staff and patients (expectation management). For instance, if a patient came in to be seen for an upper respiratory infection or knee pain, the patient's record would be reviewed to identify IMR deficiencies. They may have come in for their knee pain yet left getting their immunizations updated on the same appointment. Finally, we conducted multiple stand-down evolutions such as immunizations, laboratory screenings, Audiology and Physical Health Assessments (PHA).

Data collection comprised of the four IMR classifications (FMR, PMR, NMR, and MRI) with emphasis on FMR and MRI (grouped by nine supported commands). Data was compiled monthly from MRRS and verified in AHLTA. Using their birth month as an indicator for IMR deficiencies, we employed a retrospective longitudinal design from July 2010 until October 2011 (SECNAV 6120.3). A bi-monthly color coded "hit list" [delinquency report] was submitted to the commands' liaison office for their review and action. To fuel friendly competition for readiness, a large bulletin board was posted at the clinic's entrance to showcase and compare the commands' respective monthly IMR status. A quarterly report was then submitted to Quality Management for process improvement.

Results

This initiative has tremendous influence on the combat readiness of Marines empanelled to 13ABMC. Although these units are currently in garrison, members are expected to be combat ready for Individual Augmentee (IA) deployments, to support the mission, at any moment.

The following table illustrates improvements achieved as a result of streamlining the process and making it user friendly for the Marines entrusted to our care (period covering 15 months).

Table 1

	Jul-10	Sep-10	Nov-10	Jan-11	Mar-11	May-11	Jul-11	Sep-11	Oct-11
Fully Medically Ready (BUMED goal: 75%) [1]	**46.00%**	**59.80%**	**58.20%**	**55.80%**	**59.10%**	**60.70%**	**72.30%**	**74.50%**	**78.42%**
Partially Medically Ready	11.10%	10.20%	6.20%	6.70%	4.90%	5.70%	1.40%	1.60%	1.90%
Not Medically Ready	11.10%	10.90%	9.80%	9.40%	10.60%	9.60%	9.10%	11.70%	9.09%
Medical Readiness Indeterminate (BUMED Goal: <8%) [2]	**31.80%**	**18.80%**	**25.60%**	**27.40%**	**25.60%**	**23.90%**	**17.01%**	**12.20%**	**10.54%**

Data was analyzed by focusing on BUMED's goal of 75 percent for FMR and below eight percent (8%) for MRI status of 2,600 Marines. To proactively address IMR deficiencies, monthly readiness stand-downs were made available to accomplish activities such as PHAs, audiology examinations and immunizations.

As a result of these collective measures, the readiness goal was met. A streamlined IMR process facilitated 2,600 Marines' IMR deficiencies within one to two visits vice three or more clinic visits. This ultimately expedited the achievement of readiness and minimized lost man hours from their work spaces. The bi-monthly communications between the command liaisons, leadership and clinic staff, along with multiple readiness stand-downs, decreased the no-show (clinic appointments) rates from 13 percent to seven percent and improved IMR deficiencies as shown above (refer to Table 1).

Many obstacles and challenges were overcome during this evolution. Initially, there was limited support from the line leaders due to being in garrison. Points of contact from our nine assigned commands were occasionally transferred without notification to the clinic so communication of IMR deficiencies was delayed and lacking. Marines often did not show up for their clinic appointments to correct their IMR deficiencies. Additionally, members remained on command alpha rosters even after they rotated out and or separated from the command. These challenges were identified by the project team and implemented process improvements such as face to face conference meetings respective Commanding and Executive Officers along with their command liaison officers; to present IMR deficiencies, build relationships and market the vital importance of readiness – as being their tactical responsibility. Through consistent and continuous

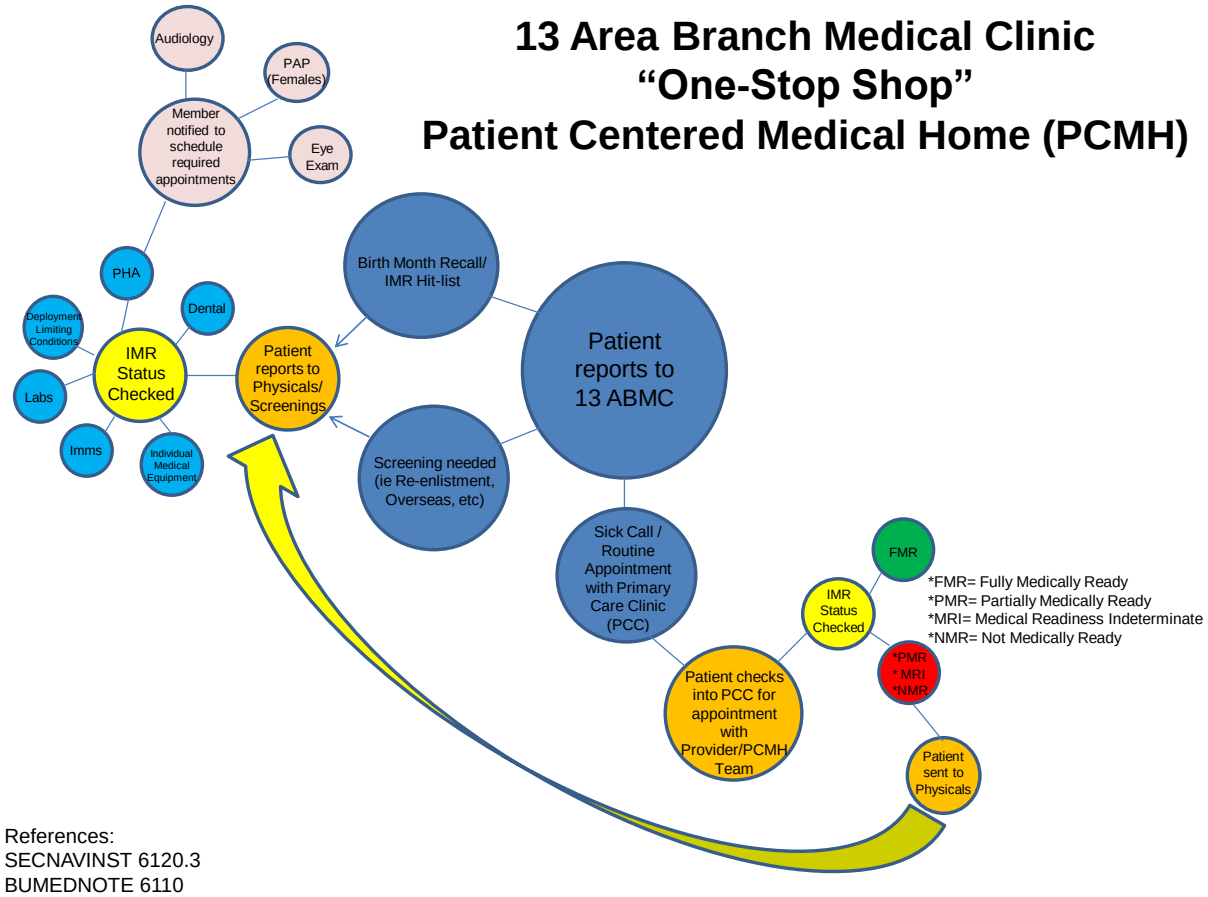
communications between the project team and command liaison offices and the support of line leadership, the goal was met and obstacles were overcome.

Conclusions

The objective to reach the BUMED IMR goals of FMR status at 75% was met and MRI status at less than 8% was partially met. At the starting point of July 2010, FMR was at 46 percent and MRI was at 31.80 percent. Implementing the revamped IMR process implemented by the project team, the results were phenomenal; FMR at 78.42%, increased by 32.42 %; MRI at 10.54%, decreased by 21.26 %. The impact to readiness, provision of time and evidence-based preventive care to 2,600 empanelled Marines are pivotal to their primary mission – the assurance of a ready force.

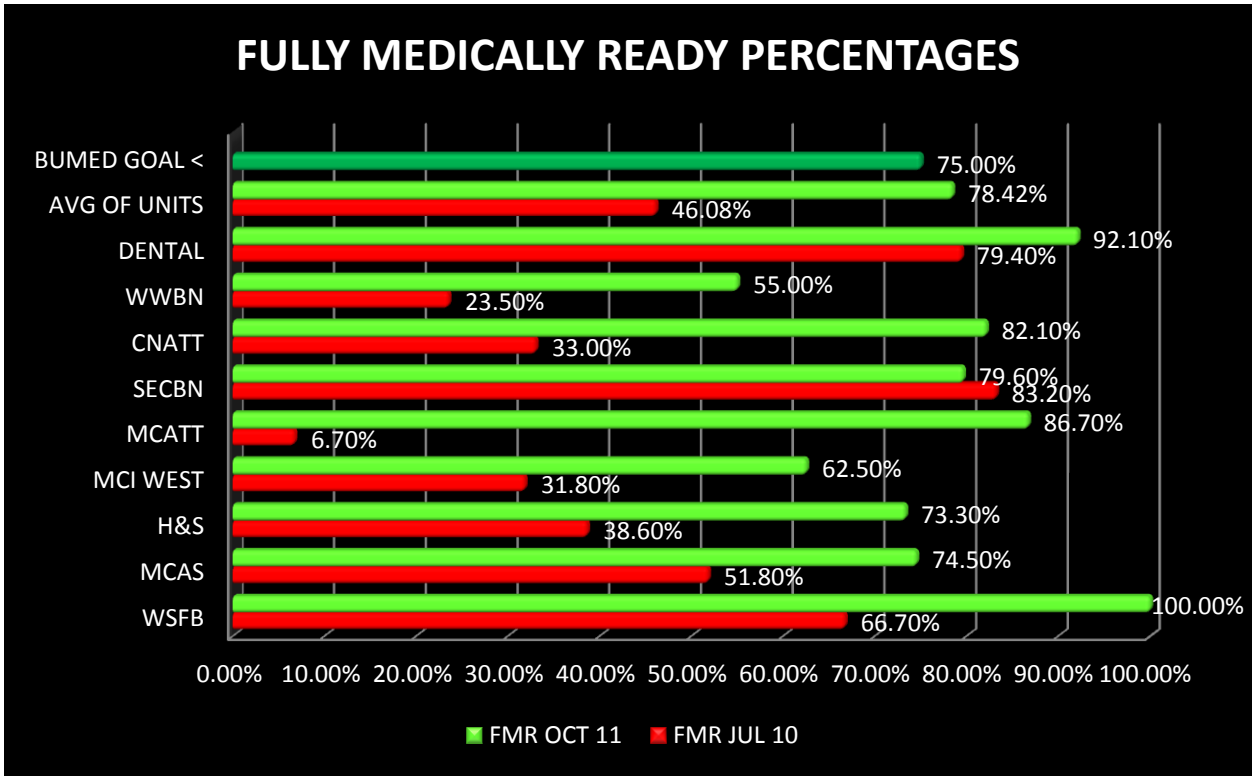
This initiative is sustainable within the primary care areas as it has been since July 2010. This improved and restructured IMR process can be achieved using PCMH principles for Active Components across the MHS. Information technology (basic tools such as MRRS and AHLTA) used for data collection are widely available in outpatient primary care clinics. These strategies are simple, easy, standardized and available at little or no cost. Accordingly, this sustainable approach can be integrated into daily operations of all primary care areas. With ongoing strides to epitomize PCMH goals, this initiative can certainly be replicated across the MHS.

(Figure 1)



References:
SECNAVINST 6120.3
BUMEDNOTE 6110

(Figure 2)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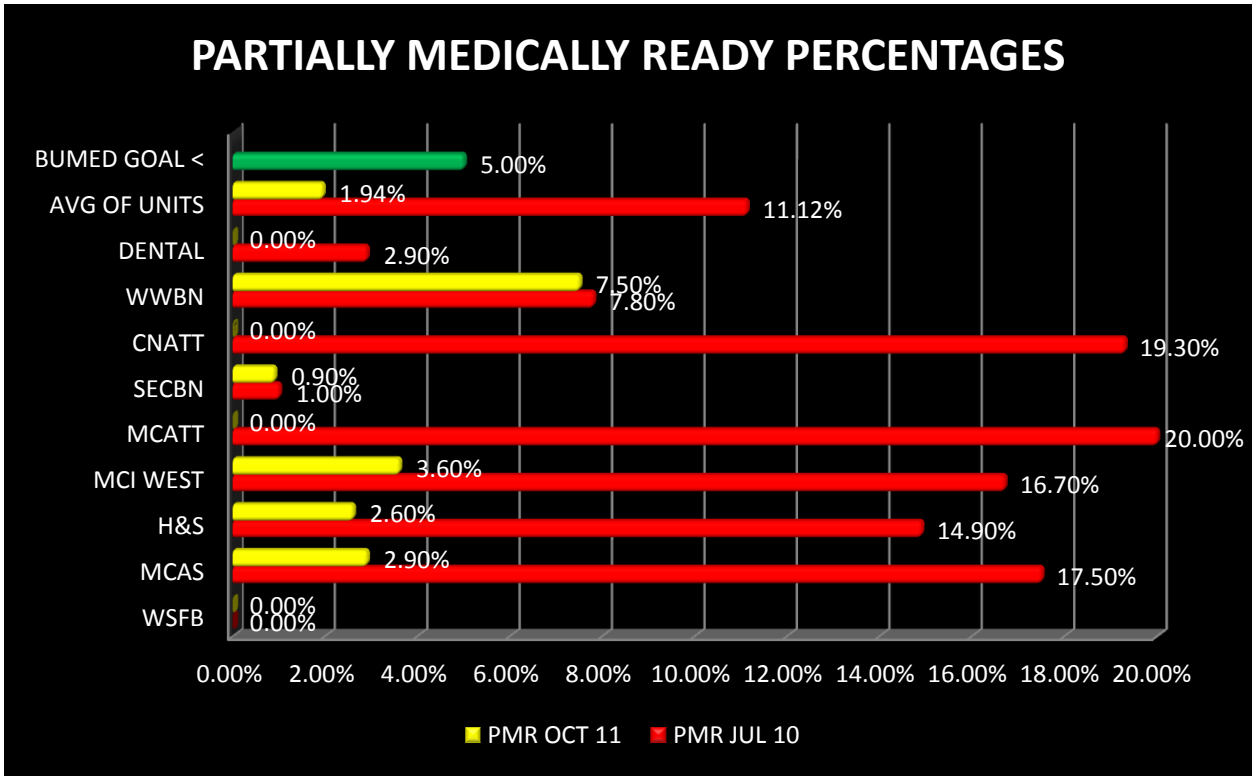
FMR JUL 10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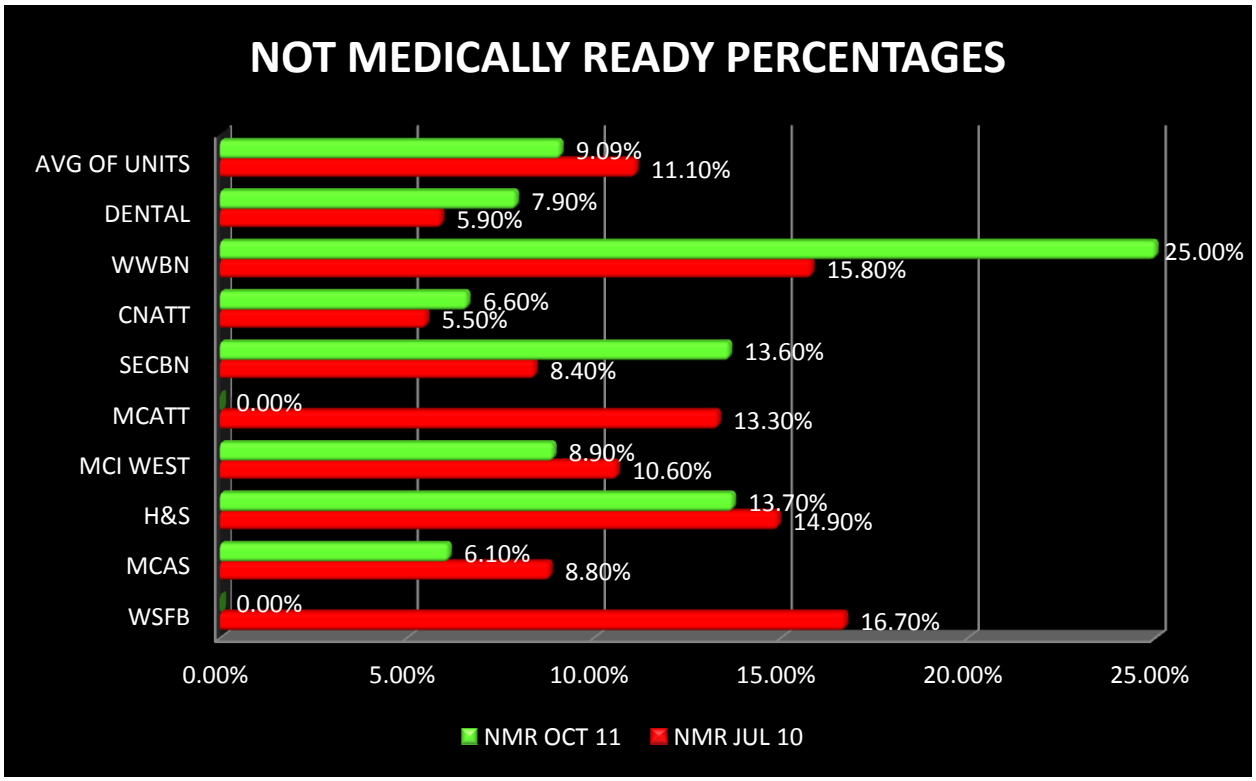
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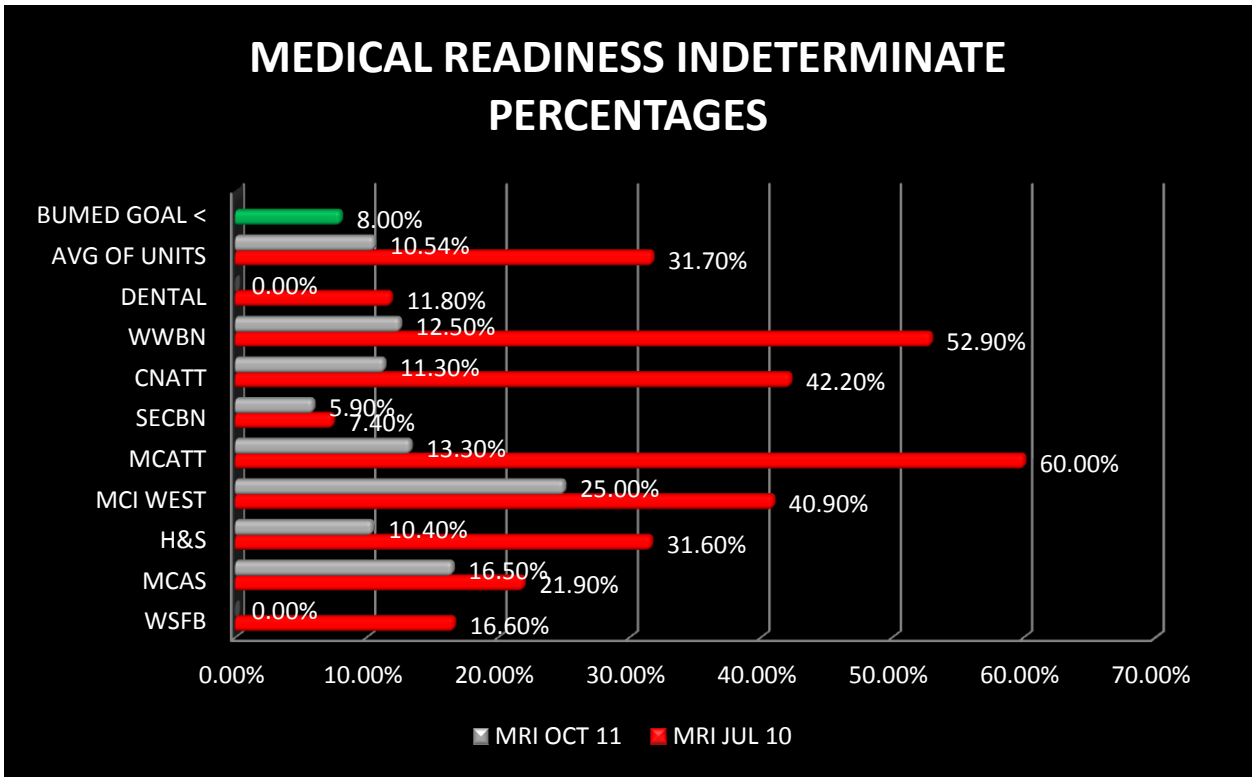
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MRI OCT 11
MRI JUL 10

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